

Cellular Electromanipulation Waveforms

Abstract of Disclosure

The present invention is a method of electromanipulation for effecting substantially simultaneous electroporation and electromigration of molecules into cells by applying to a cellular target a preselected electrical waveform. The preselected electrical waveform may be formed of at least one curved or linear component either increasing or decreasing in amplitude as a function of time. In a preferred embodiment of the invention the at least one component has a duration no greater than five minutes and a maximum amplitude no greater than 10,000 V/cm. Alternatively, the waveform may also include a substantially constant amplitude component interposed between the increasing and decreasing components. The substantially constant amplitude component may also be applied prior or subsequent to the at least one component.